

U.S. Patent Application No. 09/612,829
Response to the Office Action Mailed June 15, 2006
Amendment dated November 15, 2006

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REMARKS/ARGUMENTS

Claims 14-18, 20, 21, 23, 24, and 26-31 are pending. Applicants have duly considered the Office Action dated June 15, 2006. The amended claims distinguish over the cited references. Reconsideration and prompt favorable action are respectfully requested.

Examiner Interview

Applicants wish to thank the Examiner for the courtesies extended to the Applicants' representative during the in-person interview conducted November 7, 2006. Applicants have amended the independent claims to recite features of "independently programming" a correspondence between each work surface coordinate and a respective loading well. Applicants appreciate the Examiner's indication during the interview that such features would assist in distinguishing the claimed invention from the art of record. Applicants respectfully submit that the claims distinguish over the cited references for at least the reasons discussed below.

Objection to Claim 30 Due to Informality

The Office Action dated June 15, 2006, objected to claim 30 due to an informality in the recited sample wells. Applicants have amended claim 30 to refer to "work surface coordinates," rather than sample wells. The objection is overcome. Reconsideration is respectfully requested.

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Rejection of Claims 14-17, 20, 21, 23, 24, and 26-31 Under 35 U.S.C. § 103(a) as Being Unpatentable Over Adourian et al. in View of Lewis

The Office Action, at page 4, item 9, rejected claims 14-17, 20, 21, 23, 24, and 26-31 under 35 U.S.C. § 103(a) as being unpatentable over Adourian et al. in view of Lewis. The rejection is respectfully traversed.

Claim 14 recites a method for handling a plurality of samples in a multi-channel electrophoresis apparatus, including providing a plurality of samples located on a work surface, with each sample at a respective work surface coordinate, and transferring simultaneously in an automatic transfer device at least two of the samples from their respective work surface coordinates to respective loading wells. Claim 14 further includes the feature that a "one-to-one correspondence between a work surface coordinate and a loading well is not required." Applicants respectfully submit that neither Adourian et al., Lewis, or their combination, even if combination were proper, discloses or suggests a method as claimed, including the feature that a "one-to-one correspondence between a work surface coordinate and a loading well is not required." The handling device of Adourian et al. describes a pipettor array configured in a rigid, 9mm-standard arrangement that merely transfers material from one plate (7) to a second, microfabricated overplate (13), in a fixed sample-to-target arrangement.

Applicants respectfully submit that nothing in the MultiPROBE pipette described in Lewis, including the variable tip-spacing mentioned therein, discloses or suggests any more of the claimed invention than Adourian et al., including the feature that a "one-to-one

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correspondence between a work surface coordinate and a loading well is not required.” Applicants submit that Adourian et al., Lewis, and their combination, even assuming combination were proper, fail to disclose or suggest the claimed invention at least for all the reasons submitted in Applicants’ amendment filed July 5, 2005, and which reasons are incorporated by reference herein. Applicants, again, point out that while the Office Action hypothesizes the substitution, e.g., of a four-tip pipettor (as shown for instance at page 4) of Lewis for the eight-tip pipettor of Adourian et al., the systems of Lewis and Adourian et al. only illustrate use of a 4-to-4 and 8-to-8 transfer system, respectively. The references themselves therefore clearly individually contemplate that a one-to-one correspondence is needed, and do not disclose a motivation to attempt to substitute other numbers or arrangements of pipettor tips.

Further, neither Adourian et al., Lewis, nor their combination, even if combination were proper, discloses or suggests a method as claimed in claim 14, including an additional feature of “independently programming a correspondence between each work surface coordinate and a respective loading well....” Among other advantages, a correspondence between a work surface coordinate and a loading well that is independently programmed can permit, for example, the delivery of a sample from a given work surface coordinate to a loading well to be changed. In some embodiments, that change can be programmed to take place, for instance, on-the-fly or during the course of an analytic run, or at other times. See, e.g., applicants’ specification at page 7, lines 1-14 (“[t]hus, if a particular loading well, or its associated capillary tube, becomes inoperative, the sample transfer device can bypass that loading well and deposit the sample into an operative loading well.”, see page 7, lines 10-12.)

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Neither the fixed pipettor array of Adourian et al, nor the MultiPROBE pipette disclosed in Lewis, provides or suggests a correspondence between a work surface coordinate and a loading well that can be "independently" programmed. Applicants note that the fixed-pipettor array of Adourian et al. is not capable of actually being programmed for delivery to specific target wells, independently or otherwise. Lewis similarly contains no suggestion that a "correspondence" between wells can be programmed at all, but only that physical tip spacing can be altered.

Consistent with this lack of programmable correspondence, Applicants point out that Lewis describes the MultiPROBE device as a pipettor which "can adapt tip spacing to particular container set-ups." That is, Lewis merely suggests a pipettor whose tip separation can be changed, but only changed to conform to different predetermined plate geometries. The tip spacing of Lewis therefore does not relate to a correspondence that can be "independently programmed," but can only changed to fit a geometry dictated by the configuration of a plate having some predetermined correspondence to wells.

Claim 14 patentably distinguishes over Adourian et al. in view of Lewis. The rejection is overcome. Reconsideration is respectfully requested.

Claims 15-17, 20, 21, and 23 distinguish over Adourian et al. in view of Lewis for at least the same reasons as claim 14, from which they depend, does. The rejection of claims 15-18, 20, 21, and 23 is overcome. Reconsideration is respectfully requested.

Claim 24 recites a method for handling a plurality of samples in a multi-channel capillary electrophoresis apparatus including providing a plurality of samples located on a work surface,

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with each sample at a respective work surface coordinate, aspirating at least two of the samples into a least two respective pipettes, and transferring simultaneously in an automatic transfer device the at least two samples from their respective work surface coordinates to respective loading wells. Claim 24 further includes the feature that a "one-to-one correspondence between a work surface coordinate and a loading well is not required." Applicants respectfully submit that neither Adourian et al., Lewis, nor their combination, even if combination were proper, discloses or suggests a method as claimed in claim 24. Both Adourian et al. and Lewis lack the feature of a "one-to-one correspondence between a work surface coordinate and a loading well is not required," as discussed above with respect to claim 14. Applicants likewise respectfully submit that neither Adourian et al., Lewis, nor their combination, even if combination were proper, discloses or suggests a method as claimed, further including a correspondence between a work surface coordinate and a loading well that is "independently" programmed as recited in claim 24, for at least the same reasons discussed above with respect to claim 14. Claim 24 patentably distinguishes over Adourian et al. in view of Lewis. The rejection is overcome. Reconsideration is respectfully requested.

Claim 26 distinguishes over Adourian et al. in view of Lewis for at least the same reasons as claim 24, from which it depends, does. The rejection of claim 26 is overcome. Reconsideration is respectfully requested.

Claim 27 recites a method for handling a plurality of samples in a multi-channel capillary electrophoresis apparatus including providing a plurality of samples located on a work surface, with each sample at a respective work surface coordinate, and transferring simultaneously in an

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automatic transfer device at least two of the samples from their respective work surface coordinates to respective loading wells, wherein each loading well is in fluid communication with a respective capillary formed in a monolithic substrate. Claim 27 includes the further feature that a "one-to-one correspondence between a work surface coordinate and a loading well is not required." Applicants respectfully submit that neither Adourian et al. nor Lewis discloses or suggests a method as claimed in claim 27. Both Adourian et al. and Lewis lack the feature of a "one-to-one correspondence between a work surface coordinate and a loading well is not required," as discussed above with respect to claims 14 and 24.

Applicants likewise respectfully submit that neither Adourian et al, Lewis, nor their combination, even if combination were proper, discloses or suggests a method as claimed, further including a correspondence between a work surface coordinate and a loading well that is "independently" programmed as recited in claim 27, as likewise discussed above with respect to claims 14 and 24. Claim 27 patentably distinguishes over Adourian et al. in view of Lewis. The rejection is overcome. Reconsideration is respectfully requested.

Claims 28-31 distinguish over Adourian et al. in view of Lewis for at least the same reasons as claim 27, from which they depend, does. The rejection of claims 28-31 is overcome. Reconsideration is respectfully requested.

Rejection of Claim 18 Under 35 U.S.C. § 103(a) as Being Unpatentable Over Adourian et al. and Lewis as Applied to Claim 14 and Further in View of Either Ginsberg et al. or Monthony et al.

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The Office Action, at page 9, item 10, rejected claim 18 under 35 U.S.C. § 103(a) as being unpatentable over Adourian et al. and Lewis as applied to claim 14, and further in view of either Ginsberg et al. or Monthony et al. This rejection is respectfully traversed.

Neither Adourian et al., Lewis, Ginsberg et al., Monthony et al., nor any combination thereof, even if combination were proper, discloses or suggests a method as claimed in claim 18, including the feature that a “one-to-one correspondence between a work surface coordinate and a loading well is not required,” as discussed above with respect to claims 14, 24, and 27. None of the cited references, nor any combination thereof, even if such combination were proper, discloses or suggests the invention as claimed, further including a feature of a correspondence between a work surface coordinate and a loading well that is “independently” programmed, because of at least the reasons discussed above with respect to claims 14, 24, and 27. Ginsberg et al. and Monthony et al. were merely cited to supply a teaching of humidity control, and disclose no more of the overall claimed invention than Adourian et al. or Lewis. The rejection of claim 18 is overcome. Reconsideration is respectfully requested.

Rejection of Claim 18 Under 35 U.S.C. § 103(a) as Being Unpatentable Over Adourian et al. and Lewis as Applied to Claim 14 and Further in View of Truchaud et al.

The Office Action, at page 10, item 11, rejected claim 18 under 35 U.S.C. § 103(a) as being unpatentable over Adourian et al. and Lewis as applied to claim 14, and further in view of Truchaud et al.

Neither Adourian et al., Lewis, Truchaud et al., nor their combination, even if

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combination were proper, discloses or suggests a method as claimed in claim 18, including the feature of a "one-to-one correspondence between a work surface coordinate and a loading well is not required," as discussed above with respect to claims 14, 24, and 27. None of the cited references, nor their combination, even if such a combination were proper, discloses or suggests the invention as claimed, including the further feature of a correspondence between a work surface coordinate and a loading well that is "independently" programmed, as also discussed above with respect to claims 14, 24, and 27. Truchaud et al. was merely cited to supply a teaching of humidity control, and does not overcome the deficiencies of Adourian et al. and Lewis. The rejection of claim 18 is overcome. Reconsideration is respectfully requested.

Rejection of Claim 18 Under 35 U.S.C. § 103(a) as Being Unpatentable Over Adourian et al. and Lewis as Applied to Claim 14 and Further in View of Hansen et al.

The Office Action, at page 11, item 12, rejected claim 18 under 35 U.S.C. § 103(a) as being unpatentable over Adourian et al. and Lewis as applied to claim 14, and further in view of Hansen et al.

Neither Adourian et al., Lewis, Hansen et al., nor their combination, even if such a combination were proper, discloses or suggests a method as claimed in claim 18, including the feature of a "one-to-one correspondence between a work surface coordinate and a loading well is not required," as discussed above with respect to claims 14, 24, and 27. None of the cited references, nor their combination, discloses or suggests the method as claimed, including the further feature of a correspondence between a work surface coordinate and a loading well that is

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"independently" programmed, as also discussed above with respect to claims 14, 24, and 27. Hansen et al. was merely cited to supply a teaching of humidity control, and does not overcome the deficiencies of Adourian et al. and Lewis. The rejection of claim 18 is overcome. Reconsideration is respectfully requested.

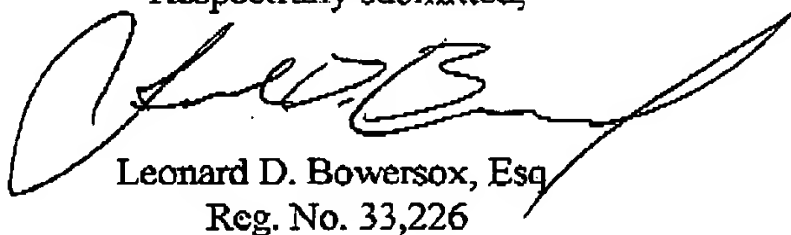
CONCLUSION

In view of the foregoing remarks, applicants respectfully request favorable reconsideration of the present application and a timely allowance of the pending claims.

Should the Examiner deem that any further action by Applicants or Applicants' undersigned representative is desirable and/or necessary, the Examiner is invited to telephone the undersigned at the number set forth below.

If there are any further fee(s) due in connection with the filing of this response, please charge the fee(s) to Deposit Account No. 50-0925. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,



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